

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 17, 2008. Claims 8, 10, 18, 20, 22, 38, 39, 41, 42, 44 and 45 remain pending in the application, with Claims 40, 43 and 46 having been cancelled herein. Claims 8, 18 and 22 are the independent claims herein. Reconsideration and further examination are respectfully requested.

Claims 8, 18, 22, 38, 39, 41, 42, 44 and 45 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,219,706 (Fan) in view of U.S. Patent No. 5,646,872 (Yonenaga) and further in view of U.S. Patent No. 6,195,366 (Kayashima), and Claims 40, 43 and 46 were rejected under § 103(a) over Fan in view of Yonenaga and Kayashima and further in view of allegedly well know prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

The invention is directed to a printer that controls the execution of a printing process. According to the invention, the printer stores a connection limitation table of connection limitation information in which discrimination information of a computer and a port number are associated with each other. When the printer receives a printing process request from a first computer, the printer allocates, to the first computer, a port corresponding to a printing process and not already allocated to another computer. The printer notifies the first computer of a port number of the allocated port, and registers the allocated port number in association with discrimination information of the first computer in the stored table. Then, when the printer receives, from an external apparatus, printing data addressed to the port, the printer controls, based on the connection limitation

information in the table, to execute the printing process where the external apparatus is the first computer, and not to execute the printing process when the external apparatus is an apparatus other than the first computer.

Referring specifically to the claims, amended independent Claim 8 is directed to a printing apparatus which communicates with a computer via a network, said printing apparatus comprising a storage unit that stores therein a connection limitation table including connection limitation information in which discrimination information of a computer and a port number are associated with each other, a reception unit that receives a printing request transmitted from a first computer via the network, an allocating unit that allocates, to the first computer, a port corresponding to a printing process and not allocated to computers other than the first computer, according to the reception of the printing request by said reception unit, a port number notifying unit that notifies the first computer of a port number of the port allocated by said allocating unit, a registration unit that associates discrimination information of the first computer and the port number of the port allocated by said allocating unit to form connection limitation information, and registers the formed connection limitation information into the connection limitation table stored in said storage unit, a data receiving unit that receives printing data addressed to the port allocated by said allocating unit, from an external apparatus, and a control unit that controls, based on the formed connection limitation information registered by said registration unit, to execute the printing process based on the printing data received by said data receiving unit in a case where the external apparatus is the first computer, and not to

execute the printing process based on the printing data received by said data receiving unit in a case where the external apparatus is an apparatus other than the first computer.

Claims 18 and 22 are method and computer medium claims, respectively, that substantially correspond to Claim 8.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of independent Claims 8, 18 and 22, and in particular, is not seen to disclose or to suggest at least the features of a printing apparatus i) allocating, to a first computer which transmits a printing request, a port corresponding to a printing process and not allocated to computers other than the first computer, ii) notifying the first computer of a port number of the allocated port, iii) associating discrimination information of the first computer and the port number of the allocated port to form connection limitation information, and registering the formed connection limitation information into the connection limitation table stored in said storage unit, and iv) controlling, based on the formed connection limitation information, to execute the printing process based on printing data received from an external apparatus in a case where the external apparatus is the first computer, and not to execute the printing process based on the received printing data in a case where the external apparatus is an apparatus other than the first computer.

Fan is seen to disclose a technique of access limitation by a firewall (or a router). Specifically, the firewall is generally provided to control permission/inhibition of data exchange between computers located inside/outside the firewall for communication with computers located outside/inside the firewall. For example, in a case where a computer A located outside the firewall intends to communicate with a computer B located

inside the firewall, such an operation as the computer A once transmits a printing request to the firewall to obtain allocation of a printing port and then actually transmits printing data to the computer B is not performed at all. Thus, Fan merely discloses that a port number is dynamically assigned, but does not disclose it is judged whether or not the port number to be assigned has been assigned by another computer. That is, in Fan, one port is not assigned as the port dedicated to the certain computer.

Further, in Fan, use of one port is not necessarily limited to only a certain computer, and one port may be used by plural computers. This is because, unlike the printing apparatus of the invention, the firewall functions to relay communication between the computers located inside and outside the firewall. More specifically, the firewall may perform a process by using a common port because it occasionally transmits communication from one computer to the other computer and then returns a response from the other computer to one computer. For example, in Fan, the SIS (state information structure) 1021 is used for the packet 1019 from the local (internal) network 1003 in Fig. 10B, and the same SIS 1021 is used for the packet 1023 from the external network 1005 in Fig. 10C. Namely, the computer on the internal network and the computer on the external network share the same SIS (i.e., the port) with each other. Accordingly, it is apparent that the use of one port is not limited to only the certain computer.

Thus, Fan is not seen to disclose or to suggest the features of a printing apparatus i) allocating, to a first computer which transmits a printing request, a port corresponding to a printing process and not allocated to computers other than the first computer, ii) notifying the first computer of a port number of the allocated port, iii)

associating discrimination information of the first computer and the port number of the allocated port to form connection limitation information, and registering the formed connection limitation information into the connection limitation table stored in said storage unit, and iv) controlling, based on the formed connection limitation information, to execute the printing process based on printing data received from an external apparatus in a case where the external apparatus is the first computer, and not to execute the printing process based on the received printing data in a case where the external apparatus is an apparatus other than the first computer.

Kayashima is seen to disclose a communications system in which a server notifies a client of its own communication address and port number, the client notifies an adjacent proxy server of its own communication address and port number, as well as the address and port number of the server. The first proxy server in turn notifies another adjacent proxy server of the its own communication address and server side port number, as well as the address and port number of the server. The process continues in this manner until a terminal proxy server is reached. Once all computers acquire a communication address and port number of each adjacent computer, a connectionless communication can be commenced. However, Kayashima is not seen to disclose or to suggest anything that, when combined with Fan, would have resulted in the features of a printing apparatus i) allocating, to a first computer which transmits a printing request, a port corresponding to a printing process and not allocated to computers other than the first computer, ii) notifying the first computer of a port number of the allocated port, iii) associating discrimination information of the first computer and the port number of the allocated port to form

connection limitation information, and registering the formed connection limitation information into the connection limitation table stored in said storage unit, and iv) controlling, based on the formed connection limitation information, to execute the printing process based on printing data received from an external apparatus in a case where the external apparatus is the first computer, and not to execute the printing process based on the received printing data in a case where the external apparatus is an apparatus other than the first computer.

Yonenaga is merely seen to disclose a word processing device with a built-in printer. However, Yonenaga is not seen to teach anything that, when combined with Fan and/or Kayashima, would have resulted in the features of a printing apparatus i) allocating, to a first computer which transmits a printing request, a port corresponding to a printing process and not allocated to computers other than the first computer, ii) notifying the first computer of a port number of the allocated port, iii) associating discrimination information of the first computer and the port number of the allocated port to form connection limitation information, and registering the formed connection limitation information into the connection limitation table stored in said storage unit, and iv) controlling, based on the formed connection limitation information, to execute the printing process based on printing data received from an external apparatus in a case where the external apparatus is the first computer, and not to execute the printing process based on the received printing data in a case where the external apparatus is an apparatus other than the first computer.

In view of the foregoing amendments and remarks, independent Claims 8, 18 and 22, as well as the claims dependent therefrom, are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

/Edward Kmett/

Attorney for Applicant
Edward A. Kmett
Registration No.: 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

FCIS_WS 2860305v1